Ministry of Health
Population Health Branch

HIV Prevention and Control Program Report for 2015

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Government of Saskatchewan

Executive Summary

The *HIV Prevention and Control Program Report for 2015* provides an overview of human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) surveillance data and a profile of individuals diagnosed with HIV and AIDS in Saskatchewan. The report is prepared by the Population Health Branch, Ministry of Health and covers the period January 1st to December 31st, 2015.

New to the 2015 report are program and financial information, and more detailed information on HIV and AIDS surveillance data, and testing information. You'll note that from previous years' reports there are more graphics and statistics presented as well as key facts and program details. The Appendix still contains technical notes and data limitations and there are two distinct sections: the profile of persons newly diagnosed with HIV in 2015 and the profile of persons newly diagnosed with AIDS.

2015 saw more point of care testing sites added and more testing completed. It also saw a 43% increase in the number of people newly diagnosed with HIV. The profile of persons newly diagnosed in 2015 was comparable to the peak years of HIV from 2008-2012. Other data from 2015 includes:

- The number of persons newly identified ("*cases*") with HIV increased markedly to 160 cases in 2015 compared to 129 individuals in 2013 and 112 individuals in 2014.
- The greatest increase in case counts was seen in the Saskatoon and Prince Albert Parkland health regions. There was a notable shift to rural communities.
- 81% of cases self-identified as Aboriginal, comparable to the peak HIV years 2008-2012.
- 80% of female cases self-identifying as Aboriginal were in the childbearing age range.
- Three infants were born infected with HIV.
- Injection drug use was reported by 61% of cases; and of those, 89% self-identified as Aboriginal.
- 34% of exposures were a result of sexual contact, either men having sex with men or heterosexual.
- The majority of people reported with HIV in the past decade are thought to be still alive (87%).
- Laboratory testing increased by 69% in the past decade; the rate of new cases detected was 2.2 for every 1,000 HIV tests performed in 2015.
- Almost half of persons diagnosed with AIDS in the decade 2006-2015 are still living.
- Almost half of persons diagnosed with AIDS in 2015 were diagnosed late in their disease progression.

Since 2009 when the Saskatchewan HIV Strategy was implemented, following a substantial increase in new HIV cases, the Ministry of Health and the SK HIV Collaborative have continued to work toward the goals of reducing HIV rates; addressing risk factors; and improving the quality of life for those living with HIV/AIDS. In order to support these goals and targeted efforts to reduce HIV rates in Saskatchewan, since 2010, the Ministry has provided $23.3M in incremental funding or $3.956M annually.

As a result of focused efforts and additional funding, we have seen positive results. The Saskatchewan HIV Strategy evaluation (June 2015) indicated that system improvements and increased resources positively impacted patient care and outcomes. However, through increased testing we have also seen an increase in newly diagnosed persons with HIV and for the first time since 2010, three infants born with HIV. The data in our 2015 HIV Prevention and Control Annual Report points to continued efforts around testing to find new cases early in the disease progression, harm reduction services, cross jurisdictional collaboration to ensure that the needs of our Indigenous population are being met and a highlight on the importance of continued prevention education and awareness.

HIV Prevention and Control Program

Saskatchewan HIV Strategy (2010-2014)

The Saskatchewan HIV Strategy was implemented following a substantial increase in new HIV cases from 2003 to 2009. A large and diverse group of people focused efforts and resources on: reducing HIV rates; addressing risk factors; and improving the quality of life for those living with HIV/AIDS. This work laid the foundation for continued system improvements.

HIV Strategy Annual Funding

With the launch of the HIV Strategy in 2010, came a commitment of $2.5M annually to bolster existing resources. Within a year this had increased to close to $4.0M. As of 2015-16, **$23.3M** has been provided since the strategy began in 2010-11. This was to enhance existing services already being provided to patients through funding to community based organization (CBOs) and the health system such as nursing, physician, pharmacist, medications, and laboratory services. For example, the annual medication costs to treat one person with antiretroviral therapy ranges from approximately $15K to $17K and up to $20K, depending on treatment regimen. Since 2010-11, annual funding for the strategy increased by 12%.

As of 2015-16, the total incremental funding provided by the Ministry annually totals $3.956M :

- $3.785M to HRs, and
- $171K to the Saskatchewan Prevention Institute for clinical and Public Health expertise, peer advisors, administration, website, training and education, and the infant formula program.
    - This funding includes support from Primary Health Services Branch for a Family Physician and outreach services at the Westside Clinic in Saskatoon.
    - Over 30 full-time positions to increase services along the continuum for HIV/AIDS care have been added as a result of this new funding.

HIV Strategy Annual Funding (cont.)

TABLE 1. **HIV Strategy Annual Funding**

	2010-11 ($)	2011-12 ($)	2012-13 ($)	2013-14 ($)	2014-15 ($)	2015-16 ($)	Total ($)	Change from 2010 to 2016 (%)
Total:	$3,533,083	$3,956,000	$3,956,000	$3,956,000	$3,956,000	$3,956,000	$23,313,083	12% ↑

Funding provided to the HRs is used to support:

- Community development coordinators;
- Outreach programs/mobile clinics;
- Social workers;
- Clinical and administrative staff;
- Prevention and risk reduction services;
- Transportation;
- Peer to Peer programs; and
- Funding to Community Based Organizations (CBOs).

Saskatchewan HIV Collaborative

The Saskatchewan HIV Collaborative is a provincial committee, formed in 2014, to provide advice and input on prevention, diagnosis, and care of those living with HIV/AIDS. In 2015, the Committee included representation from the Ministry of Health, First Nations and Inuit Health Branch (FNIHB), Health Regions (HRs), Saskatchewan Disease Control Laboratory, a Medical Health Officer, a pharmacist, nurse consultant, and an HIV Strategy Coordinator. Members provide advice and direction on addressing target populations with common needs, behaviours and risk factors across a broad spectrum of communicable diseases such as HIV, tuberculosis (TB), hepatitis C virus (HCV), and sexually transmitted infections.

The Collaborative regularly reviews and revises approaches based on the current trends of HIV. In 2015, 81% of newly diagnosed HIV cases self-reported Aboriginal ethnicity and injection drug use was a primary risk factor in 61% of cases. There were also three infants born infected with HIV. For these and many other reasons, the partnership with FNIHB, Northern Inter-Tribal Health Authority (NITHA) and other FN is extremely important in effectively dealing with HIV. The Ministry also continues to fund the Infant Formula program to provide free formula for infants born to mothers living with HIV.

SK HIV COLLABORATIVE

Addressing HIV requires a joint effort on the part of all stakeholders, including clinicians, CBOs, FNIHB, Health Regions, people living with HIV and the Ministry. The HIV Collaborative has established various working groups with broad stakeholder representation to implement programs and develop policies to address risk factors associated with the acquisition of HIV, while supporting timely diagnosis, linkage to and retention in care for those living with HIV. Through this work, the province is continuing to implement initiatives that increase access to prevention, testing, treatment, care, and support of communicable diseases.

HIV Strategy Evaluation (2015) – Outcomes and Impact

The Saskatchewan HIV Strategy evaluation (June 2015) indicated that system improvements and increased resources positively impacted patient care and outcomes. Positive outcomes included increased testing and case finding, targeted educational opportunities, an enhanced focus on patient engagement, improved access to multidisciplinary teams in rural and remote areas, and a decrease in health care utilization.

Many initiatives were concentrated in the larger urban centers. As we continue to expand access to testing, treatment, and care, we expect to see our incidence of HIV increase. In 2015, there were 160 new cases of HIV, a 43% increase from 2014.

The HIV Strategy, through its diverse and extensive work, encompassed a comprehensive set of interventions and provided an example of how addressing a health issue in a multidimensional way can affect various levels of the health care system, from patient to provider. While important successes were identified, further work is vital to success over the long term.

Moving forward, it is critical that support for HIV prevention and control programs be sustained to ensure continuity of the valuable progress made to date and to improve the health of Saskatchewan residents. It is also important to continue monitoring the trends of HIV risk factors, client demographics and co-infection with HCV and TB, and adjust programming and policies to reflect the changing epidemiology.

Prevention and Risk Reduction (PRR) Programs

Sixty-one percent (61%) of the new cases of HIV in Saskatchewan in 2015 self-reported injecting drugs as their main exposure to the virus compared to 49% in 2014. It is important that people who inject drugs have clean needles to reduce transmission to others and prevent other health complications as a result of unclean needles.

PRR programs are part of a comprehensive public health disease prevention strategy to reduce the spread of HIV, HCV, and other blood-borne infections. The distribution of supplies is intended to reduce the sharing of used needles/syringes and other injecting equipment among people who use injection drugs.

The Ministry provides annualized funding to eight HRs for PRR Programming to reduce transmission of blood-borne infections and other harms. Services include education and supplies for safer drug use and sexual health.

As of December 31, 2015, the provincially-funded programs include twenty-five fixed and three mobile programs located in eight health regions: Regina Qu'Appelle, Five Hills, Saskatoon, Prairie North, Prince Albert Parkland, Sunrise and the North (Mamawetan Churchill River and Keewatin Yatthé).

HIV Care Continuum

The HIV Care Continuum[1] (also known as the HIV Cascade of Care or HIV Treatment Cascade) is a model that outlines the sequential steps, or stages of HIV medical care that people living with HIV will go through, from initial diagnosis to achieving the goal of viral suppression (an undetectable, or very low level of HIV in the blood).

A comprehensive continuum of care ensures that all persons living with HIV receive the support required to achieve viral suppression. By ensuring that individuals living with HIV are diagnosed and are then linked to and well-engaged in care, the percentage of people able to achieve viral suppression will be increased.

The HIV Care Continuum is recognized as a focal point for efforts to maximize individual and public health benefits of antiretroviral therapy. A thorough understanding of the stages in the HIV Care Continuum where individuals are lost to care, informs strategies to re-engage individuals to care and subsequently, treatment.

In 2015, initiatives to expand access to HIV testing and improved case management approaches focused on engaging more individuals in the stages of the HIV Care Continuum.

In July 2014, the Joint United Nations Programme on HIV and AIDS (UNAIDS) set global targets to end the AIDS epidemic; specifically, 90% of people with HIV are diagnosed, 90% of those diagnosed are on treatment, and 90% of those on treatment are virally suppressed.

[1] AIDS.gov. *HIV Care Continuum*. Retrieved November 18, 2016 from: https://www.aids.gov/federal-resources/policies/care-continuum/

Overview of persons newly diagnosed with HIV & AIDS

- Table 2 provides a summary of the HIV-AIDS cases for the decade 2006 to 2015. Table 3 provides the geographic information for the 2014-2015 HIV cases [see next page].
- The number of persons newly identified (*"cases"*) with HIV increased markedly to 160 cases in 2015 compared to 129 individuals in 2013 and 112 individuals in 2014 [Table 2].
- 81% of cases self-identified as Aboriginal
- Injection drug use was reported by 61% of cases
- 34% of exposures were a result of sexual contact, either men having sex with men or heterosexual.
- The greatest increase in case counts was seen in the Saskatoon and Prince Albert Parkland HRs. There was also a notable shift to rural communities [Table 3].
- There were 28 newly diagnosed AIDS cases in 2015.

TABLE 2. **Persons newly diagnosed with HIV & AIDS in Saskatchewan, 2006-2015**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
HIV										
Cases	101	127	174	199	174	186	177	129	112	160
Change from previous year (%)	28%↑	26%↑	37%↑	14%↑	13%↓	7%↑	5%↓	27%↓	13%↓	43%↑
SK Rate per 100,000	10.1	12.5	16.8	19.2	16.3	17.2	16.2	11.5	9.8	13.9
Canadian rate per 100,000	7.8	7.4	7.9	7.1	6.9	6.7	6.0	5.9	5.8	5.8
Comparison of SK to Canada	1.3x	1.7x	2.1x	2.7x	2.4x	2.6x	2.7x	1.9x	1.7x	2.4x
Self-Identified Ethnicity										
Aboriginal	71%	66%	77%	79%	73%	80%	75%	68%	71%	81%
Non-Aboriginal & not-specified	29%	34%	23%	21%	27%	20%	25%	32%	29%	19%
Age & Gender										
Mean Age (years)	33.4	32.8	34.9	34.8	36.3	36.8	36.2	38.4	39.8	37.9
Female	52%	49%	45%	45%	38%	42%	40%	34%	34%	38%
Most Commonly Reported Primary Risk Factors										
Injection drug use (IDU)	69%	69%	78%	79%	75%	76%	67%	56%	49%	61%
Men who have sex with men (MSM)	5%	6%	4%	2%	6%	4%	8%	7%	13%	8%
Heterosexual contact	19%	13%	13%	15%	14%	15%	19%	27%	29%	27%
AIDS										
Cases	8	6	12	14	27	26	36	24	32	28

TABLE 3. Persons newly diagnosed with HIV by health region (HR), 2014 & 2015

HR	2014	2015	Change from previous year (%)
Regina Qu'Appelle HR (RQHR)	28	26	↓2 (7%)
Saskatoon HR (SKHR)	32	58	↑26 (81%)
Prince Albert Parkland HR (PAPHR)	25	50	↑25 (100%)
Mamawetan Churchill River HR (MCRHR)	8	9	↑1 (13%)
Prairie North HR (PNHR)	8	6	↓2 (25%)
SubTotal	**101**	**149**	**↑48 (48%)**
All other HRs	11	11	0 (0%)
Total	**112**	**160**	**↑48 (43%)**

*Information for all other HRs is collapsed due to small numbers

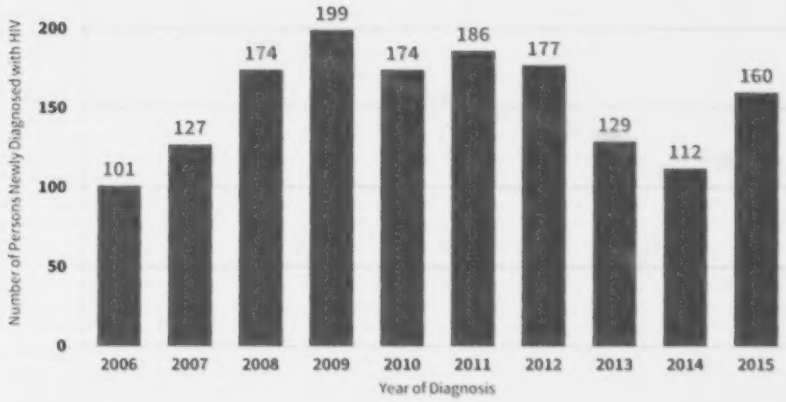
The profile of persons newly diagnosed with HIV

Newly Diagnosed Cases and Trends

- In 2015, 160 new individuals were diagnosed with HIV, a 43% increase compared to 2014 (112 cases) [Figure 1].
- The 2015 rate of 13.9 cases per 100,000 population was below the peak rates between 2008 (16.8 cases per 100,000) and 2012 (16.2 cases per 100,000) [Figure 2].
- 1,921 HIV cases have been reported since reporting began in 1985. Of these, 80% were diagnosed in the past 10 years.

The number of newly identified HIV cases increased in 2015 compared to the two previous years

FIGURE 1. **Persons newly diagnosed with HIV by year of diagnosis, 2006-2015**

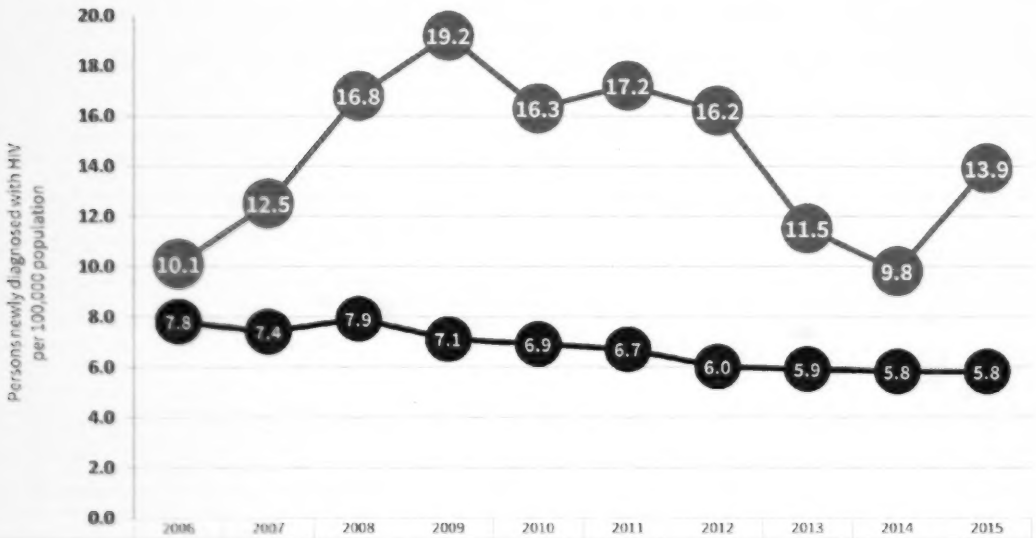


The peak of 199 HIV cases in 2009 related, in part, to enhanced efforts to find people who may have been infected for a number of years but had not been tested. The increase again in 2015 may also be related to case finding and public education activity resulting in people who had contact with identified HIV cases coming forward for testing.

Saskatchewan's HIV rate was over double the national rate

- The national HIV rate declined from 2008 (7.9 cases per 100,000) to 2012 (6.0 per 100,000) and then plateaued. Over the same period, Saskatchewan rates increased from 2006 to 2009 then declined to 2014 but sharply increased in 2015.
- The 2015 national rate remained the same as the 2014 rate at 5.8 per 100,000 population making the Saskatchewan 2015 rate of 13.9 per 100,000 population 2.4 times higher.

FIGURE 2. **HIV diagnosis rates, SK versus Canada, 2006-2015**



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
SK	10.1	12.5	16.8	19.2	16.3	17.2	16.2	11.5	9.8	13.9
Canada	7.8	7.4	7.9	7.1	6.9	6.7	6.0	5.9	5.8	5.8
Comparison SK vs Canada	1.3	1.7	2.1	2.7	2.4	2.6	2.7	1.9	1.7	2.4

Year of Diagnosis

Gender and Age Characteristics

- Of the 160 new cases, 100 were male, up 35% from 2014. 60 cases were female, an increase of 58% from 2014 [Tables 4 & 5].
- Over the decade, 2006-2015, the number of male cases gradually increased compared to female cases. In 2015, there were almost twice as many male cases as female cases (ratio 1.7:1).
- The 2015 rate for males was 17.4 cases per 100,000 and the rate for females was 10.5 cases per 100,000. The increase in 2015 in male and female rates over 2014 reflects the increase in total cases [Figure 3].

There were nearly twice as many male cases as females

TABLE 4. **Males newly diagnosed with HIV by age group, 2006-2015**

Age Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
< 29	11 (23%)	18 (28%)	18 (19%)	23 (21%)	23 (21%)	22 (21%)	24 (23%)	17 (20%)	17 (23%)	25 (25%)
30-39	19 (40%)	19 (29%)	38 (40%)	41 (37%)	34 (31%)	41 (38%)	36 (34%)	25 (29%)	19 (26%)	20 (20%)
40+	18 (38%)	28 (43%)	39 (41%)	46 (42%)	51 (47%)	44 (41%)	46 (43%)	43 (51%)	38 (51%)	55 (55%)
Total	**48**	**65**	**95**	**110**	**108**	**107**	**106**	**85**	**74**	**100**

TABLE 5. **Females newly diagnosed with HIV by age group, 2006-2015**

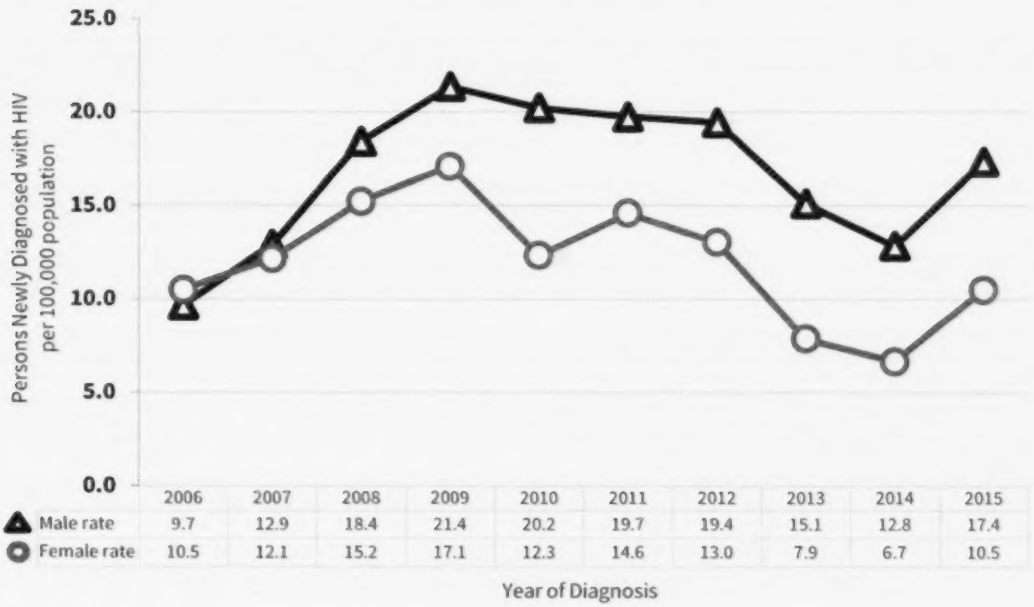
Age Group	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
< 29	27 (51%)	40 (65%)	39 (49%)	46 (52%)	29 (45%)	28 (35%)	30 (42%)	11 (25%)	8 (21%)	24 (40%)
30-39	15 (28%)	12 (19%)	24 (30%)	29 (33%)	24 (38%)	28 (35%)	20 (28%)	19 (43%)	16 (42%)	24 (40%)
40+	11 (21%)	10 (16%)	16 (20%)	14 (16%)	11 (17%)	23 (29%)	21 (30%)	14 (32%)	14 (37%)	12 (20%)
Total	**53**	**62**	**79**	**89**	**64**	**79**	**71**	**44**	**38**	**60**

- There was a sharp increase in the diagnosis rate among males 40-49 years in 2015, as expected given the sharp increase in overall cases [Figure 4].
- In the decade, 2006-2015, there was an increasing trend in rates among males 50 years and older in contrast to other male age groups which fluctuated according to the overall rate.
- Female cases comprised 43% of the total cases aged 20-29 years (18 cases) and 55% of total cases aged 30-39 years (24 cases). Sharp increases in rates were seen for both age groups in 2015 [Figure 5].
- 87% of all female cases diagnosed in 2015 were of a childbearing age (range 17-44 years). While this is higher than the past two years, it is comparable to figures in 2008 to 2012 when HIV case counts remained high.

There was a noteworthy increase in HIV diagnosis rates among older males.

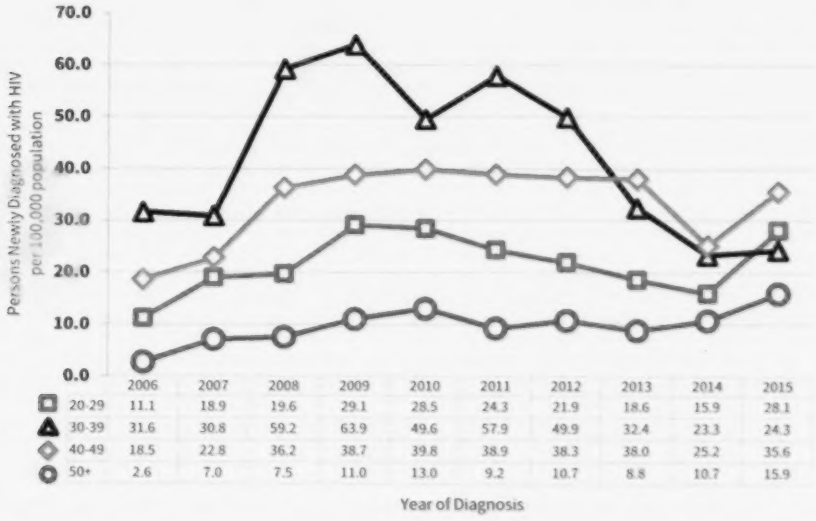
- Female cases are generally younger than males. The female rates in the 30-39 year age group over the decade, 2006-2015, were comparable to male rates in the 40-49 year age group.

FIGURE 3. **HIV diagnosis rates by gender, 2006-2015**



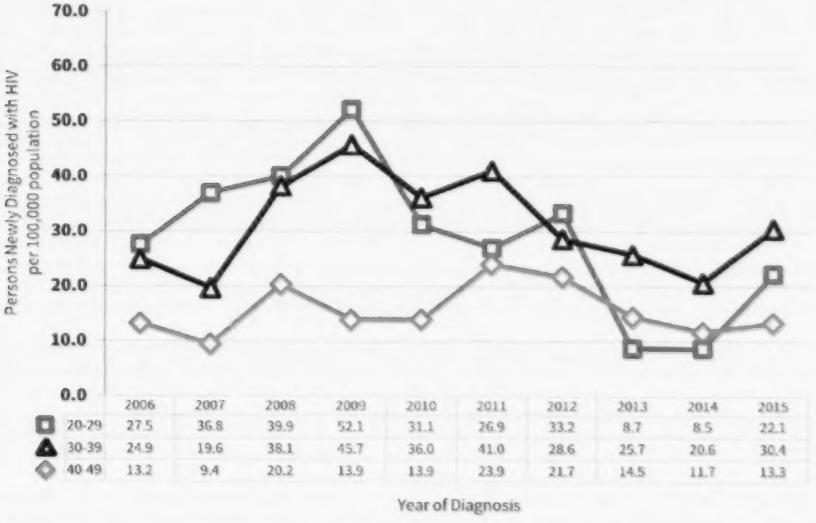
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Male rate	9.7	12.9	18.4	21.4	20.2	19.7	19.4	15.1	12.8	17.4
Female rate	10.5	12.1	15.2	17.1	12.3	14.6	13.0	7.9	6.7	10.5

FIGURE 4. **Males newly diagnosed with HIV by age group, 2006-2015**



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
20-29	11.1	18.9	19.6	29.1	28.5	24.3	21.9	18.6	15.9	28.1
30-39	31.6	30.8	59.2	63.9	49.6	57.9	49.9	32.4	23.3	24.3
40-49	18.5	22.8	36.2	38.7	39.8	38.9	38.3	38.0	25.2	35.6
50+	2.6	7.0	7.5	11.0	13.0	9.2	10.7	8.8	10.7	15.9

FIGURE 5. **Females newly diagnosed with HIV by age group, 2006-2015**



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
20-29	27.5	36.8	39.9	52.1	31.1	26.9	33.2	8.7	8.5	22.1
30-39	24.9	19.6	38.1	45.7	36.0	41.0	28.6	25.7	20.6	30.4
40-49	13.2	9.4	20.2	13.9	13.9	23.9	21.7	14.5	11.7	13.3

*Rates for males and females < 20 years and females 50 years and older are not shown because of small numbers.

The sharp increase in age-group specific rates in 2015 is in keeping with the overall increase. The gradual increase in male cases aged 50 years and older over the decade is noteworthy.

Newborns infected with HIV in 2015

- 43 HIV positive pregnant women delivered infants in 2015. Of those, three infants became infected, the first since 2010. This brings the total to nine HIV infected newborns cases since 2006.
- The table below illustrates that between 1987 and 2005 (18 years), there were nine newborn cases; from 2006–2010, there were six cases; and from 2011-2014, there were no cases.

TABLE 6. **Newborns infected and exposed to HIV by year of birth, 1987-2015**

	1987-2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Newborns infected with HIV	9	0	4	0	1	1	0	0	0	0	3	**18**
Newborns delivered to HIV positive mothers*	N/A	N/A	N/A	N/A	N/A	N/A	18	17	25	18	43	**121**

*Data are not available from 1987 to 2010. Data from 2011 to 2014 do not include counts from RQHR and other southern HRs. Data are not collected by the notifiable disease system in Saskatchewan and numbers may be underestimated.

Three infected newborns in one year is high; however, care of HIV positive pregnant women is complex and various factors during pregnancy and delivery contribute to newborns becoming infected.

Ethnic origin

- Of the 160 new HIV cases in 2015, 31 or 19% self-identified as Caucasian, Black, Latin-American, Asian, and South Asian. This is down slightly from an average of 33 per year for the previous five years.
- 129 (81%) of the 160 newly identified cases self-identified as Aboriginal, up from 71% (79/112 cases) in 2014.
- For the 10 years illustrated in Figure 6, the percent of non-Aboriginal cases ranged from a low of 19% in 2011 and 2015 to a high of 34% in 2007. For the same period, the percent of total cases reporting Aboriginal ethnicity ranged from a low of 66% in 2007 to a high of 81% in both 2011 and 2015.
- One-half of cases self-identifying as Aboriginal in 2015 lived in Saskatoon HR (25%) and Prince Albert-Parkland HR (26%) (65 cases).
- Males self-identifying as Aboriginal made up 74% (74/100 cases) of all male cases in 2015.

81% of cases self-identified as Aboriginal

- Females self-identifying as Aboriginal comprised 92% of all female cases (55/60 cases) for 2015. Females accounted for 43% of all cases self-identifying as Aboriginal, a decrease from the average 48% of Aboriginal cases in the years 2006 to 2014.
- 80% (44/55) of female cases self-identifying as Aboriginal were in the childbearing age group of 15-45 years.
- All three infant cases in 2015 were born to HIV positive women self-identified as Aboriginal.

FIGURE 6. **Newly diagnosed persons by self-identified ethnicity, 2006-2015**

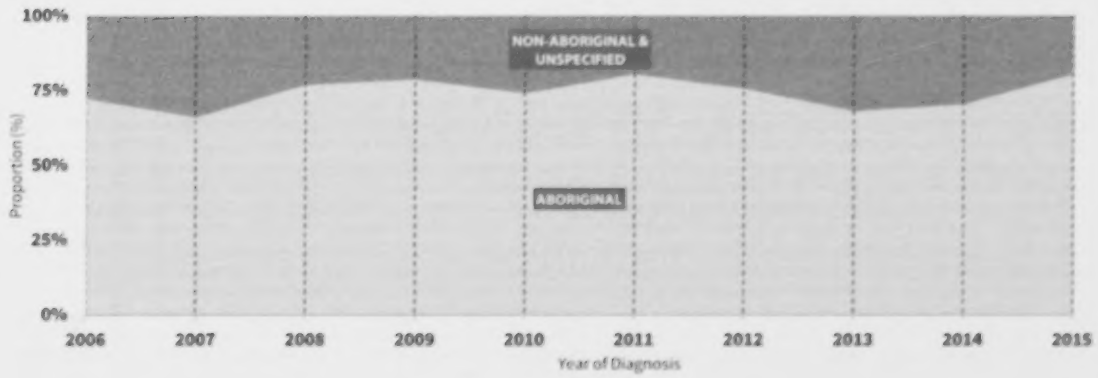


TABLE 7. **Newly diagnosed persons by self-identified ethnicity, 2006-2015**

Self-identified ethnicity	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Aboriginal (%)	73 (72%)	84 (66%)	134 (77%)	157 (79%)	129 (74%)	150 (81%)	134 (76%)	88 (68%)	79 (71%)	129 (81%)
Non-Aboriginal & Unspecified (%)	28 (28%)	43 (34%)	40 (23%)	42 (21%)	45 (26%)	36 (19%)	43 (24%)	41 (32%)	33 (29%)	31 (19%)
Magnitude difference	2.6	2.0	3.4	3.7	2.9	4.2	3.1	2.1	2.4	4.2
Total	**101**	**127**	**174**	**199**	**174**	**186**	**177**	**129**	**112**	**160**

The burden of HIV fell for the greatest part among those people self-identifying as Aboriginal. This difference was first recognized in 2004. Over the past decade, the number of cases self-identifying as Aboriginal ranged from 2-fold to 4-fold the number of non-Aboriginal cases. To a small degree, self-reporting of ethnicity accounted for some of this fluctuation.

Geographical distribution

The majority of people newly diagnosed with HIV were residents of large urban centres

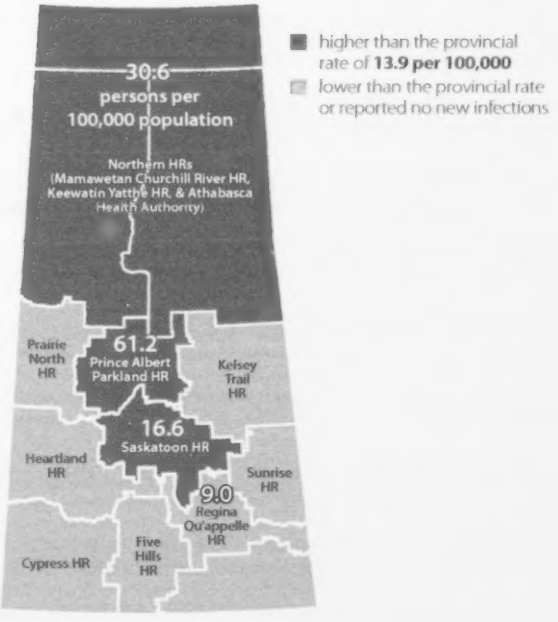
TABLE 8. **New HIV cases by HR, 2015**

Health Region (HR)	New HIV cases [number (% of total cases)]	HIV cases living in large cities* [number (% of HR cases)]	HIV cases living in small cities or rural areas** [number (% of HR cases)]
SKHR	58 (36%)	47 (81%)	11 (19%)
RQHR	26 (16%)	19 (73%)	7 (27%)
PAPHR	50 (31%)	36 (72%)	14 (28%)
Other HRs	26 (16%)	N/A	26 (100%)
Total	**160**	**102 (64%)**	**58 (36%)**

* Saskatoon, Regina and Prince Albert
**includes people living on First Nations reserves

- The rates in Prince Albert Parkland and Saskatoon HRs and the combined three northern health authorities of Mamawatan Churchill River and Keewetin Yatthé health regions and Athabasca Health Authority were higher than the provincial rate of 13.9 per 100,000. The remaining HRs had rates lower than the provincial rate or reported no new infections in 2015.
- Nearly two-thirds (102/160 or 64%) of new cases in 2015 were either residents of Saskatoon (47 cases), Prince Albert (36 cases) or Regina (19 cases).
- Prince Albert Parkland HR's HIV diagnosis rate in 2015 was 61.2 per 100,000, a 2.1 fold increase over 2014 (29.1 per 100,000) and higher than their peak rate of 31.6 per 100,000 in 2010.
- Saskatoon HR's rate in 2015 was 16.6 per 100,000, about half of 2009's rate (30.6/100,000).
- Regina Qu'Appelle HR's HIV diagnosis rate dropped to 9.0 per 100,000 in 2015 from 19.7 per 100,000 in 2009.

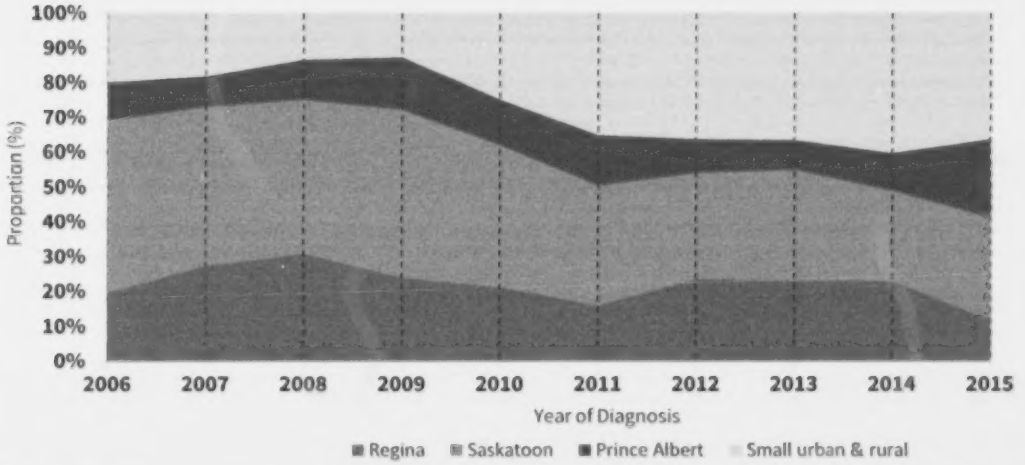
FIGURE 7. **HIV Diagnosis Rates by HR, 2015**



- In the first part of the decade, 2006-2015, the largest percentage of cases was found in the cities. As illustrated by the following graph, there has been a shift in new HIV cases toward rural areas [Figure 8].
- The percent of newly diagnosed cases living in small cities and rural communities increased from 20% in 2006 to 40% in 2014 and 36% in 2015.
- The percent of all newly diagnosed cases who lived in Prince Albert varied between 9% and 15% from 2006 to 2014 and then rose sharply to 23% of newly diagnosed cases in 2015.

HIV infection is becoming more prevalent in smaller cities and rural communities

FIGURE 8 & TABLE 9. **Newly diagnosed persons in the 3 largest cities versus small urban and rural communities, 2006-2015**



City of residence upon diagnosis	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Regina	20 (20%)	35 (28%)	54 (31%)	48 (24%)	37 (21%)	30 (16%)	42 (24%)	30 (23%)	26 (23%)	19 (12%)
Saskatoon	50 (50%)	58 (46%)	77 (44%)	96 (48%)	71 (41%)	64 (34%)	54 (31%)	41 (32%)	29 (26%)	47 (29%)
Prince Albert	11 (11%)	11 (9%)	20 (11%)	30 (15%)	23 (13%)	27 (15%)	17 (10%)	11 (9%)	12 (11%)	36 (23%)
Small urban & rural	20 (20%)	23 (18%)	23 (13%)	25 (13%)	43 (25%)	65 (35%)	64 (36%)	47 (36%)	45 (40%)	58 (36%)
Total	**101**	**127**	**174**	**199**	**174**	**186**	**177**	**129**	**112**	**160**

*Due to rounding, percentages may not total to 100%

While most of the HIV cases reside in the three largest cities of Saskatoon, Regina, and Prince Albert, a growing number of infected people live in small urban and rural communities. In the three most recent years, 2013-2015, this shift appears to have happened mainly in males in the 40-55 year age range.

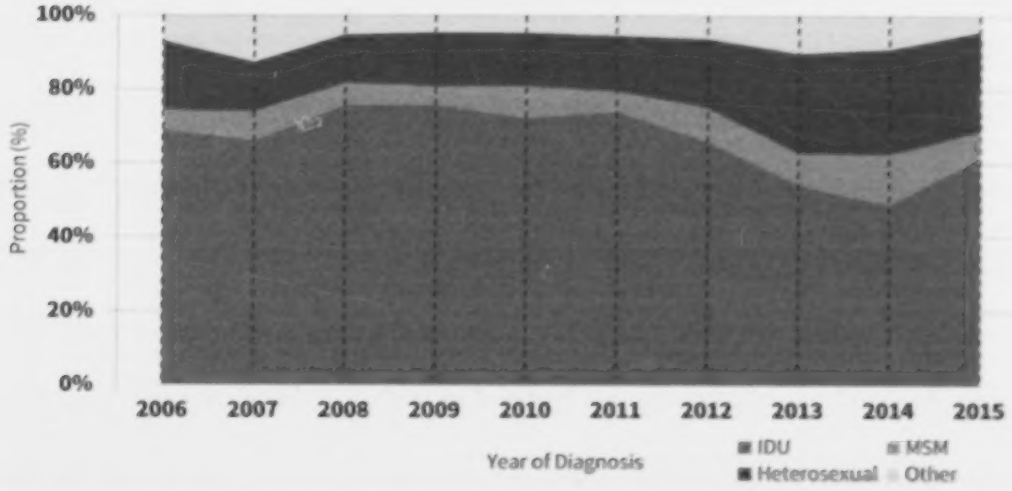
HIV high risk lifestyle behaviours

- The risk of getting HIV varies widely depending on the type of exposure or behaviour (such as sharing needles or having sex without a condom). Some exposures to HIV carry a much higher risk of transmission than other exposures.
- For some exposures, while transmission is biologically possible, the risk is so low that it is not possible to put a precise number on it; however, risks do add up over time. Even relatively small risks can add up over time and lead to a high lifetime risk of getting HIV. In other words, there may be a relatively small chance of acquiring HIV when engaging in a risky behaviour with an infected partner only once; but if repeated many times, the overall likelihood of becoming infected after repeated exposures is actually much higher.
- Certain lifestyle practices place an individual at a higher risk of acquiring the HIV virus through blood and body fluids.
- Lifestyle activities are presented according to a hierarchy or level of risk of being exposed to HIV (see Technical Notes).

61% of new HIV cases reported injecting drugs

- Men having unprotected sex with men (MSM), have the highest risk for exposure according to the national HIV risk hierarchy (PHAC). In 2015, 14 of the 100 males newly diagnosed with HIV reported this as a risk factor. Two of these men also injected drugs, the second highest risk for being exposed to HIV. These two individuals were categorized with cases who inject drugs since the pool of HIV infected people who inject drugs is much larger in Saskatchewan than the pool of HIV infected men who practice sex with men [Table 11]. The probability of acquiring HIV through injecting drugs, therefore, is much higher.
- 61% of newly diagnosed male and female cases injected drugs.
- Unprotected heterosexual sex was the third highest risk for acquiring HIV comprising 43/160 or 27% of newly diagnosed people in 2015.

FIGURE 9 & TABLE 10. **Newly diagnosed persons self-reporting primary risk factors for acquiring HIV infection, 2006-2015**



Primary Risk Factor	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Injection Drug Use (IDU)	70 (69%)	84 (66%)	132 (76%)	151 (76%)	126 (72%)	138 (74%)	117 (66%)	70 (54%)	55 (49%)	98 (61%)
Men having sex with men (MSM)	5 (5%)	10 (8%)	10 (6%)	10 (5%)	15 (9%)	10 (5%)	16 (9%)	11 (9%)	15 (13%)	12 (8%)
Heterosexual exposure	19 (19%)	17 (13%)	23 (13%)	29 (15%)	25 (14%)	28 (15%)	33 (19%)	35 (27%)	32 (29%)	43 (27%)
Other exposure	7 (7%)	16 (13%)	9 (5%)	9 (5%)	8 (5%)	10 (5%)	11 (6%)	13 (10%)	10 (9%)	7 (4%)
Total	**101**	**127**	**174**	**199**	**174**	**186**	**177**	**129**	**112**	**160**

TABLE 11. **Most commonly reported primary risk factor for acquiring HIV infection, 2015**

Risk factor	Number of newly diagnosed persons (%)
Injection drug use (IDU)*	98 (61%)
Heterosexual exposure	43 (27%)
Men having sex with men (MSM)	12 (8%)
Perinatal	3 (2%)
Other exposure	3 (2%)
No identified risk	1 (<1%)
Total	**160**

*Two (2) MSM-IDU cases included in IDU

Multiple lifestyle risks

- The majority of newly diagnosed HIV cases practiced a lifestyle involving multiple risks for acquiring the HIV virus. Less than 20% reported only one risk while some cases reported as many as six risk factors.
- In 2015, 82 of the 160 people newly diagnosed with HIV (51%) reported three or more risk factors.
- Not all risks are reviewed by the case investigator. The reported risks represent only those documented in the case record, therefore, the actual number of multiple risks could be higher.
- Heterosexual sex with high risk partners comprised the majority of other lifestyle risks practiced by newly diagnosed individuals, particularly cases having partners who injected drugs (72/160 cases), partners with suspected or confirmed HIV infections (58/160 cases) or partners not disclosing a risk (78/160 cases).

51% of cases reported three or more high risk behaviours

- Some newly diagnosed individuals also had a past history of sexually transmitted infection (27/160 cases), an indicator for risky sexual practices.
- Tattooing and exposure to blood through fighting was reported by 46 of 160 newly diagnosed cases.

TABLE 12. **Newly diagnosed persons with multiple reported risk factors, 2015**

Number of risk factors reported for every person	Number of newly diagnosed persons
No risk factors reported	1 (0.6%)
One (1) risk factor	31 (19.4%)
Two (2) risk factors	46 (28.8%)
Three (3) risk factors	36 (22.5%)
Four (4) risk factors	20 (12.5%)
Five (5) risks factors	20 (12.5%)
Six (6) risks factors	6 (3.8%)
Total	**160**

Factors that Increase Risk of HIV Transmission

- Previous sexually transmitted diseases (STIs)
- Acute and late stage HIV infection
- High viral loads

Factors that Decrease Risk of HIV Transmission

- Condom use
- Male circumcision
- Anti-retroviral treatment
- Pre-exposure prophylaxis

Injection drug use - the highest self-reported risk

- A total of 98 (61%) newly diagnosed HIV cases self-reported injection drug use in 2015 compared to a peak of 76% (151 cases) in 2009 [Figure 9]. The declining trend seen after 2011 in the proportion of new HIV cases reporting injecting drugs was reversed in 2015.
- In 2015, men comprised 60% of cases self-reporting injection drug use and 90% of those were aged 20 to 55 years. Two of these cases were males who also reported having sex with males.
- With the exception of one teenager, all female cases who reported injection drug use were between 20 and 52 years of age.
- 1,064 of 1,539 newly diagnosed HIV cases reported injection drug use in the decade 2006-2015 (69%) compared to 203 of 343 HIV cases reporting this risk in the previous decade 1996-2005 (59%).
- 89% of cases who reported injection drug use self-identified as Aboriginal. Among Aboriginal female cases, 95% (36/38) reported injection drug use, and all but four of the new cases were in the childbearing age (range 19-44 years).
- 85% of males who inject drugs self-identified as Aboriginal (51/60).

Individuals who inject illicit drugs, because of a compromised health status, typically respond less well to the drug therapies for HIV viral suppression or are more challenged with adherence to the drug regime. Two-thirds of individuals injecting drugs practiced two or more additional activities putting them at risk, albeit a lesser risk, for acquiring the infection.

Heterosexual activity - the second most reported risk

- 43 cases (27%) reported heterosexual activity as the primary risk for infection in 2015, part of a declining trend since 2009.
- 20 females reported heterosexual activity as the primary risk factor; of these, 17 self-identified as Aboriginal, three of which were teenagers.
- 23 males reported heterosexual activity as the primary risk for infection.

Though 43 cases stated heterosexual activity was their primary risk for infection, cases with higher risks for acquiring HIV also practiced heterosexual activity. Close to half of the cases practicing heterosexual sex stated their partner had no high risk activities associated with HIV infection.

Sex workers

- Fifteen of the new cases were female in the sex trade. Of those, eight were sex workers 20-35 years of age and also self-identified as Aboriginal
- All but one of the seven male sex workers self-identified as Caucasian. Their ages ranged from 30 to 65 years of age. None identified as men having sex with men.
- Six cases reported knowing their partner was HIV positive.
- Fourteen of the 15 cases practicing sex work also injected drugs.
- All cases among sex workers reported between three and six other risks for acquiring HIV infection.

Men having sex with Men (MSM)

- Fourteen male cases in total (14% of male cases) reported sex with other men as a risk for HIV infection. Two of these cases also injected drugs and were categorized with cases who injected drugs.
- 75% self-identified as Caucasian (9 cases).
- The number of MSM cases fluctuates year to year, however, there is the suggestion of a recent upward trend. An annual average of six cases was reported in the decade between 1996 and 2005. An average of six cases was reported each year in the first half of the decade, 2006-2015, compared to 11 cases annually in the latter half.

Unlike other jurisdictions in Canada, MSM is not yet a common risk for acquiring HIV in Saskatchewan. All but two HIV cases practising MSM in 2015 had two to five other risks, albeit lesser risks, for acquiring an HIV infection.

Immigrants from endemic countries

- Saskatchewan received four previously diagnosed HIV positive immigrants from endemic countries in 2015. These are not included among the 160 cases whose infection was diagnosed in this province.
- From 2006-2015, 13 cases from endemic countries (<1% of HIV positive individuals) were diagnosed after arriving in this province.
- The number of HIV cases from endemic countries ranges from one to three cases annually.

Co-infection with other blood borne diseases

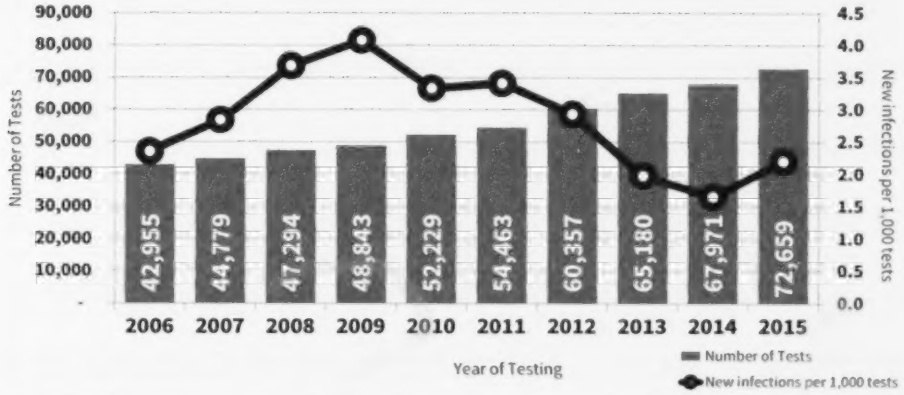
- 71 (44%) of the 160 new cases were co-infected with hepatitis C, and of those, 63 (89%) also reported injection drug use.
- No newly diagnosed cases in 2015 were co-infected with hepatitis B.
- Only one case had ever been diagnosed with infectious syphilis, several years ago.

The majority of people newly diagnosed with HIV over the past decade were still alive

- 87% of people diagnosed with HIV in the past decade, 2006 to 2015, were presumed to be still living (1,347/1,539).
- One-quarter of cases who died in the past decade died in the year they were diagnosed (47/192 cases). For some, the primary cause of death was unrelated to their HIV infection. For many this indicates they presented for care late in their infection.
- Seven of 160 HIV cases newly diagnosed in 2015 died within one to 12 months.

Laboratory testing for HIV

FIGURE 10 & TABLE 13. **HIV tests performed at SDCL and new infection rate, 2006-2015**



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Number of Tests	42,955	44,779	47,294	48,843	52,229	54,463	60,357	65,180	67,971	72,659	**556,730**
% Change from previous year	-	4%	6%	3%	7%	4%	11%	8%	4%	6%	**69%↑****
New infections per 1,000 tests	2.4	2.8	3.7	4.1	3.3	3.4	2.9	2.0	1.6	2.2	**2.8**

**Percent change 2006 to 2015

- The number of tests for HIV performed by the Saskatchewan Disease Control Laboratory (SDCL) increased steadily each year. Almost 30,000 more tests were performed in 2015 compared to 2006, an overall increase of 69%.
- A total of 1,332 point of care (POC) tests were completed in 2015. Data are not available for the previous years. A confirmatory test is completed on all positive HIV POC tests by sending blood samples to the SDCL.
- The rate of new HIV infections per 1,000 tests performed fluctuated yearly between 1.6/1,000 tests and 4.1/1,000 tests over the decade, 2006 to 2015, for an average of 2.8 new infections detected for every 1,000 tests performed.
- 2.2 new infections were confirmed for every 1,000 tests performed in 2015, an increase over 1.6/1,000 tests in 2014.

A portion of tests represent individuals with low risk lifestyles but still wishing to know their HIV status. Some tests represent repeat testing requested by individuals with an ongoing high risk lifestyle or by physicians for clinical monitoring of patients. SDCL performs testing on individuals initially diagnosed with HIV in another jurisdiction or residents from other jurisdictions. The rate of new infections represents the initial positive HIV test for Saskatchewan residents only.

The profile of persons newly diagnosed with AIDS

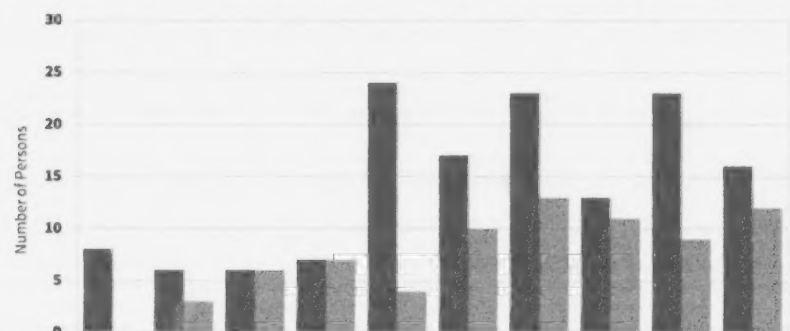
Newly Diagnosed Cases and Trends

- 43% of the 28 AIDS cases in 2015 were diagnosed at the same time as their HIV diagnoses (12 cases), higher than 2014 (37%) and 2013 (29%) but similar to the peak years of HIV diagnoses, 2008-2012.
- The length of time between cases first testing positive for HIV and being diagnosed with AIDS in 2015 ranged from 0 to seven years. This time lapse is typical of the past five years.
- Males aged 50 years and older represented a larger proportion of AIDS cases than in previous years (25%, 7/28).
- Ten of the 12 female AIDS cases in 2015 were of a childbearing age, (range 20-39 years).
- 73% of female AIDS cases in the past decade, 2006-2015, were diagnosed in the latter five years (53/73).

Almost half of the AIDS cases in 2015 were diagnosed with HIV late in their disease progression

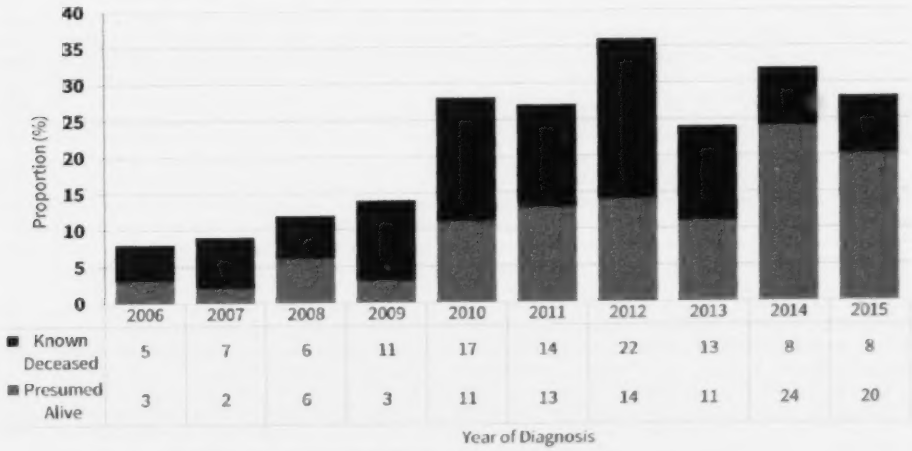
- 68% of AIDS cases diagnosed from 2006-2015 were in the latter half of the decade (147 of 215 cases).
- A third (31%) of the AIDS cases diagnosed in the past decade died within a few months of their diagnosis. Others lived between one and eight years after an AIDS diagnosis. Some cases died from causes other than AIDS.
- Over 450 people in Saskatchewan are living or have lived with an AIDS defining illness since 1984 when HIV/AIDS became a provincially notifiable disease. There is an under reporting of AIDS cases.

FIGURE 11. **Persons newly diagnosed with AIDS by year and gender, 2006-2015**



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
MALES	8	6	6	7	24	17	23	13	23	16
FEMALES	0	3	6	7	4	10	13	11	9	12
TOTAL	8	9	12	14	28	27	36	24	32	28

FIGURE 12. **Life status* of persons newly diagnosed with AIDS by year of diagnosis**



*Life status as of August 15, 2016

Individuals diagnosed concurrently with HIV and AIDS typically present late in their disease progression. Four of the 12 cases diagnosed concurrently with HIV and AIDS in 2015 also died in 2015. The number of AIDS cases among females will predictably increase in the coming years as a reflection of the increasing numbers of female HIV cases beginning in 2004.

Appendix

Technical Notes and Data Limitations

- All HIV and AIDS cases have been confirmed positive by laboratory testing. All HIV testing is done at the Saskatchewan Disease Control Laboratory (SDCL).
- Notification of HIV and AIDS cases to the local Medical Health Officer and the Saskatchewan Ministry of Health is mandated by the Disease Control Regulations under *The Public Health Act, 1994*.
- Data in this report are based on information extracted from the EpiData HIV database and the Integrated Public Health Information System (iPHIS) on August 15, 2016 by the Ministry of Health.
- HIV cases counts are based on the year of the first positive lab result; therefore they do not necessarily represent the number of new infections that year since individuals can be first tested years after their infection. The exception is infant cases born to infected mothers where date of diagnosis is assigned by the infant's year of birth.
- The childbearing age of women includes ages 15 to 45 years.
- HIV rates cited in this report are crude rates. Rates were calculated by dividing the total number of HIV cases by the Saskatchewan covered population, expressed as the number of cases or events per 100,000 population.
- Only first-time HIV diagnoses are included in this report. All repeat positive and follow-up tests are removed.
- The data do not include HIV cases currently living in Saskatchewan who were initially diagnosed outside of the province. Individuals lab-confirmed by the SDCL must be resident in the province six months to be included in the annual case count, otherwise they are referred to the jurisdiction where they resided and are counted there.
- Individuals tested by Immigration, Refugees and Citizenship Canada, as part of the immigration process, are not included in the provincial statistics.
- First Nations individuals known to be living on reserve at the time of HIV diagnosis are included in figures for the health regions where the First Nations reserve is located.
- Delays occur in the reporting of HIV and AIDS data, specifically for ethnicity and risk exposure categories, as well as for AIDS cases and death information. As updated information becomes available, case data may be reassigned based on this information. Thus, numbers may differ from previous reports or at the time of next year's report.
- Ethnicity is self-identified. For this report, persons self-identifying as Aboriginal comprise Inuit, Métis, and First Nations. The non-Aboriginal classification includes individuals self-identifying as Caucasian, Black, Latin-American, Asian, South Asian and other ethnicities.

Technical Notes and Data Limitations (cont.)

- Risk exposure information is self-reported, thus limiting the accuracy and completeness of the data. HIV and AIDS cases were assigned to a single exposure category based on a national hierarchy of risk for acquiring the virus. When more than one risk factor is provided, cases are classified as the exposure category that is highest in the hierarchy:
  - MSM – Men having sex with men
  - MSM/IDU – Men reporting both injection drug use and having sex with men
  - IDU – Injection Drug Use
  - Het-Exposure – Heterosexual exposure includes partnering with an individual at risk for HIV, including those from an endemic country, or partners who have no known risk for HIV. This category also includes individuals where heterosexual contact is the only exposure activity reported
  - Endemic – Origin from an HIV endemic country where heterosexual transmission is the main exposure. Cases from endemic countries under 15 years of age are not included in the count of heterosexual cases
  - Perinatal – Infected newborns of an HIV positive mother
  - NIR – No identified risk, unknown risk and less likely sources of infection
- The incidence pattern of AIDS cases does not necessarily reflect the year in which the client was infected, but rather the year in which the individual was diagnosed with an AIDS defining illness. Individuals reported with AIDS may have been diagnosed with HIV in jurisdictions outside of Saskatchewan.

FIGURE 1. **Persons newly diagnosed with HIV by year of diagnosis, 2006-2015**

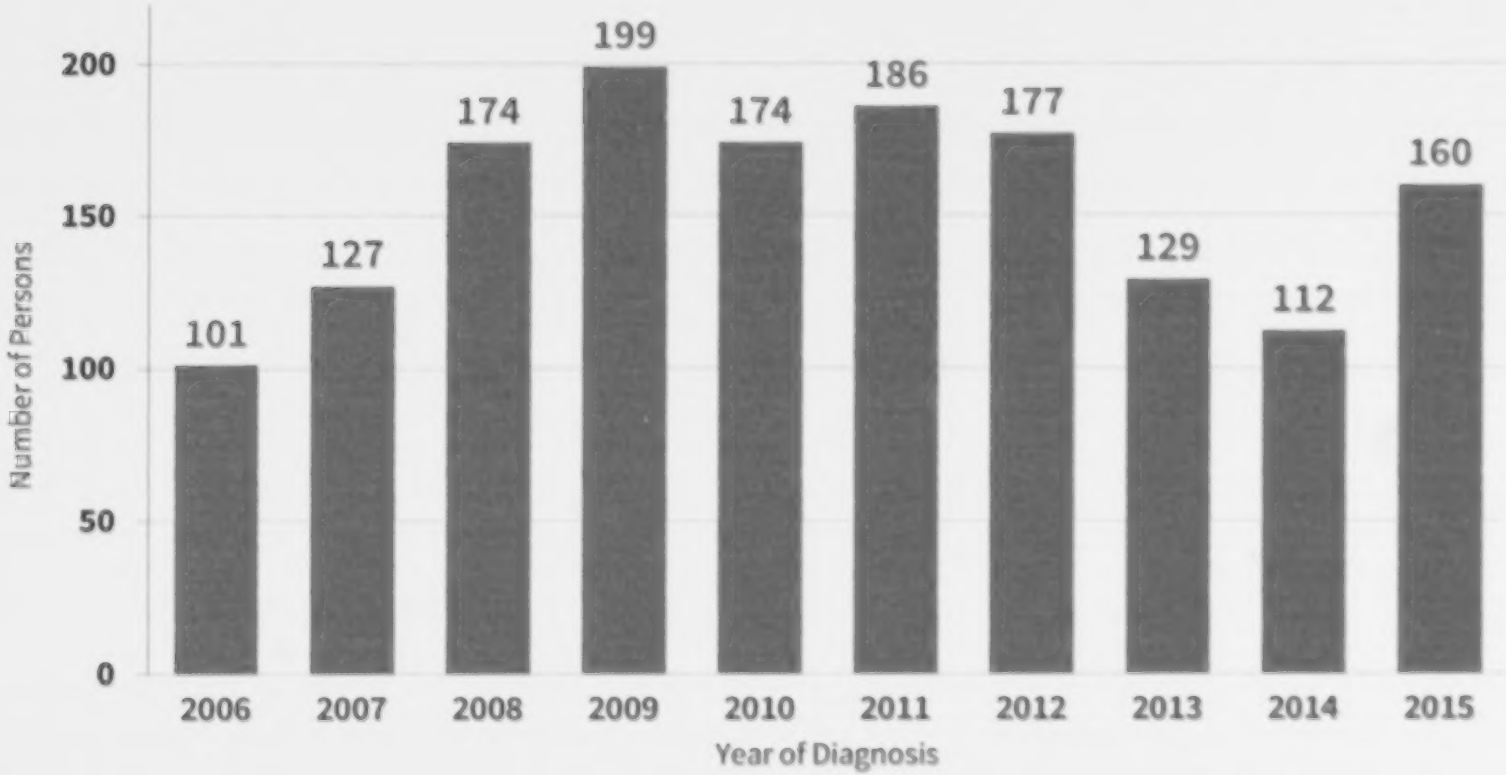
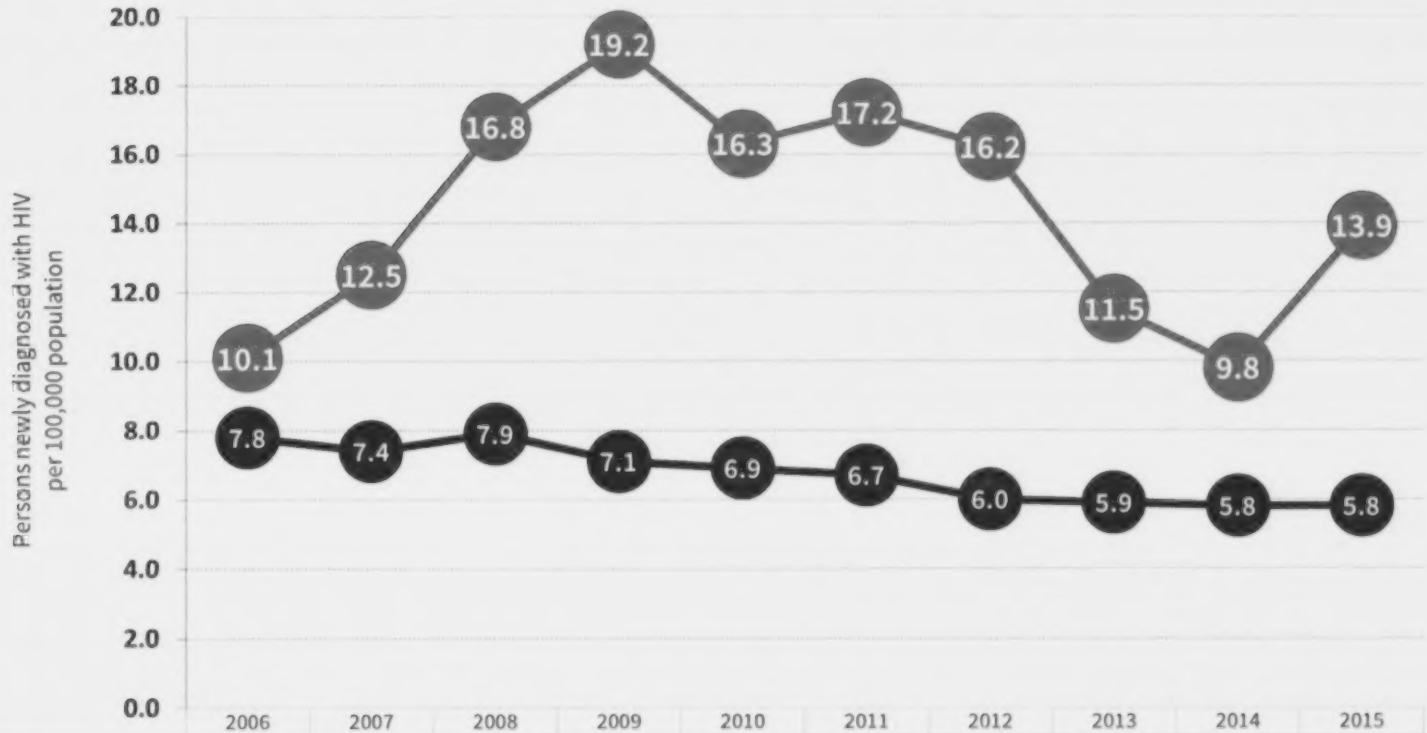


FIGURE 2. **HIV diagnosis rates, SK versus Canada, 2006-2015**



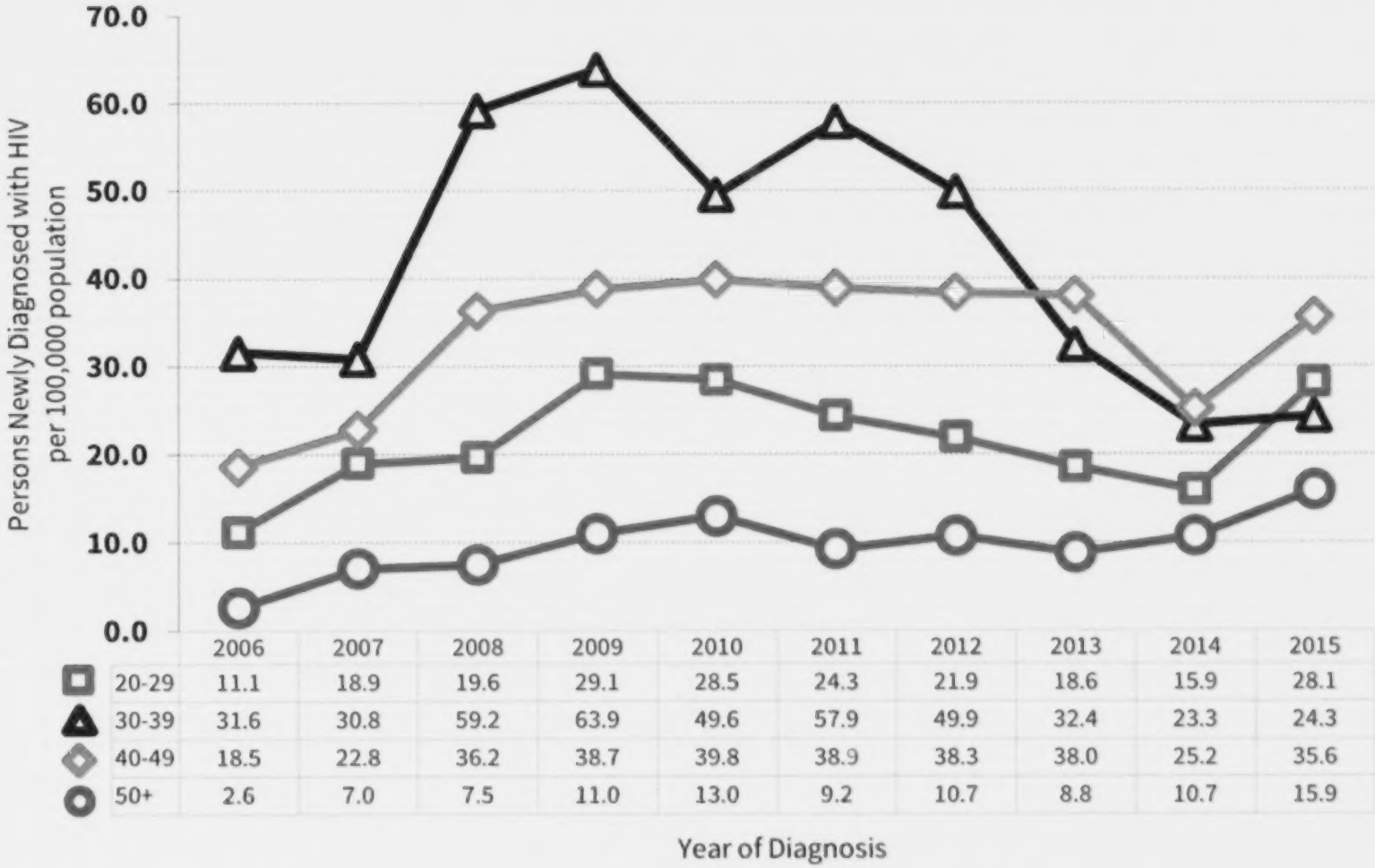
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
SK	10.1	12.5	16.8	19.2	16.3	17.2	16.2	11.5	9.8	13.9
Canada	7.8	7.4	7.9	7.1	6.9	6.7	6.0	5.9	5.8	5.8
Comparison SK vs Canada	1.3	1.7	2.1	2.7	2.4	2.6	2.7	1.9	1.7	2.4

Year of Diagnosis

FIGURE 3. **HIV diagnosis rates by gender, 2006-2015**

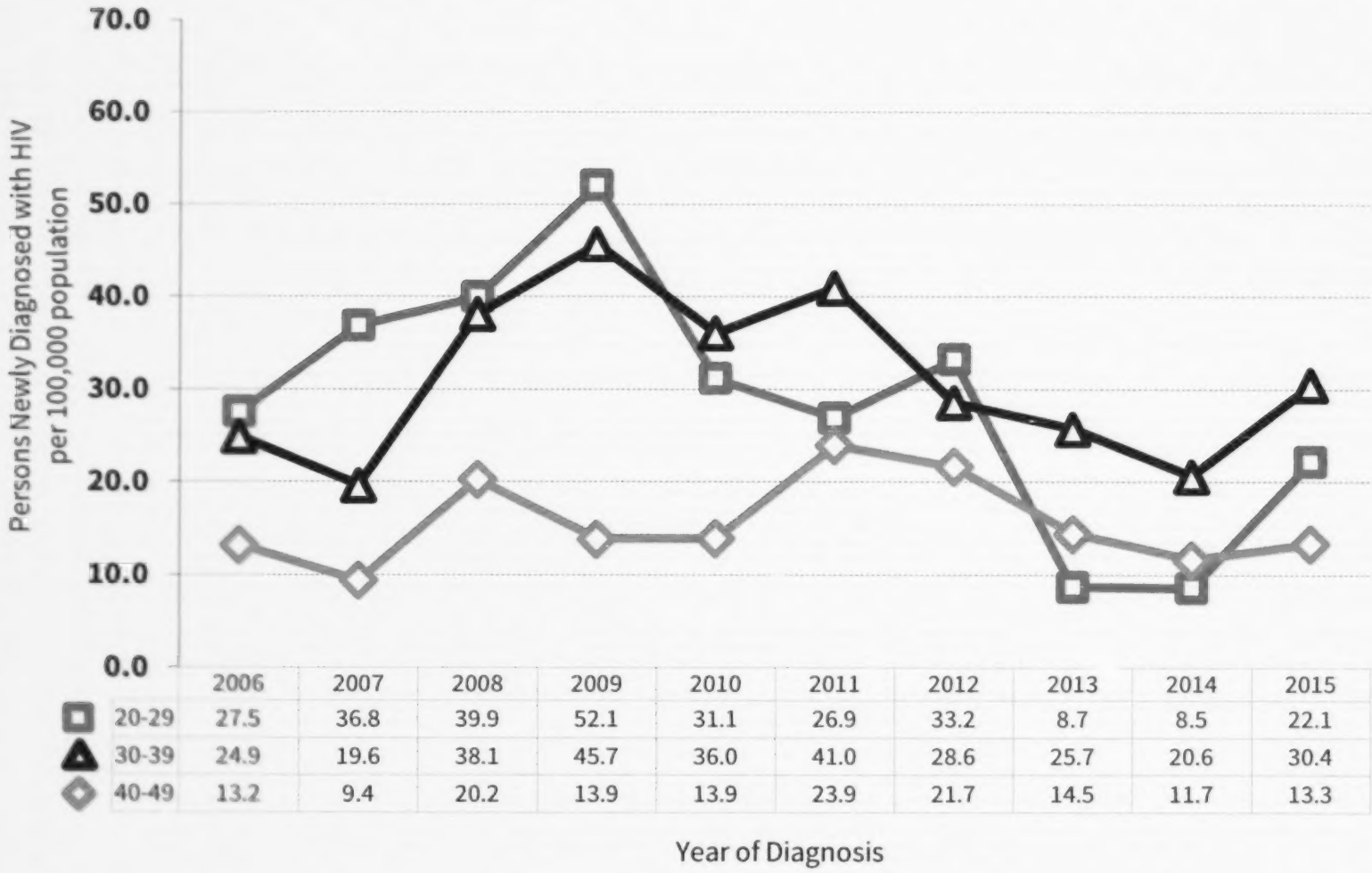
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Male rate	9.7	12.9	18.4	21.4	20.2	19.7	19.4	15.1	12.8	17.4
Female rate	10.5	12.1	15.2	17.1	12.3	14.6	13.0	7.9	6.7	10.5

FIGURE 4. **Males newly diagnosed with HIV by age group, 2006-2015**



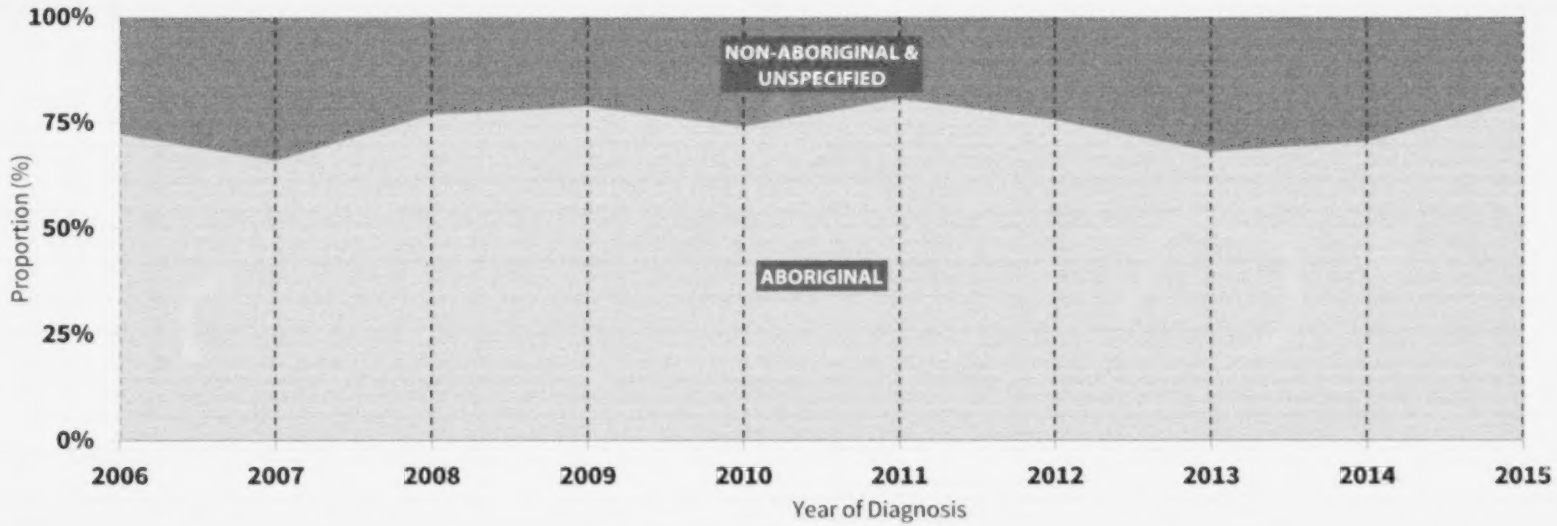
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
20-29	11.1	18.9	19.6	29.1	28.5	24.3	21.9	18.6	15.9	28.1
30-39	31.6	30.8	59.2	63.9	49.6	57.9	49.9	32.4	23.3	24.3
40-49	18.5	22.8	36.2	38.7	39.8	38.9	38.3	38.0	25.2	35.6
50+	2.6	7.0	7.5	11.0	13.0	9.2	10.7	8.8	10.7	15.9

FIGURE 5. **Females newly diagnosed with HIV by age group, 2006-2015**



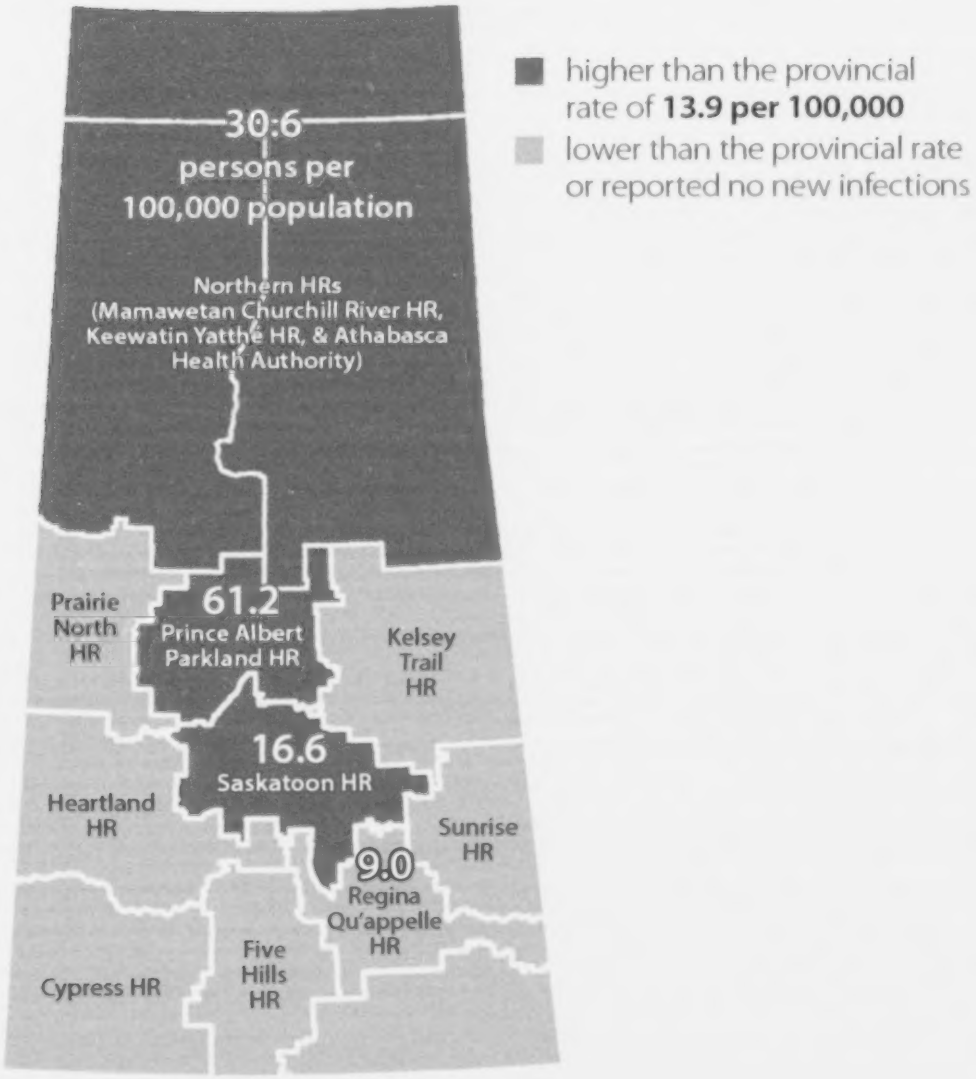
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
20-29	27.5	36.8	39.9	52.1	31.1	26.9	33.2	8.7	8.5	22.1
30-39	24.9	19.6	38.1	45.7	36.0	41.0	28.6	25.7	20.6	30.4
40-49	13.2	9.4	20.2	13.9	13.9	23.9	21.7	14.5	11.7	13.3

FIGURE 6 & TABLE 7. Newly diagnosed persons by self-identified ethnicity, 2006-2015



Self-identified ethnicity	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Aboriginal (%)	73 (72%)	84 (66%)	134 (77%)	157 (79%)	129 (74%)	150 (81%)	134 (76%)	88 (68%)	79 (71%)	129 (81%)
Non-Aboriginal & Unspecified (%)	28 (28%)	43 (34%)	40 (23%)	42 (21%)	45 (26%)	36 (19%)	43 (24%)	41 (32%)	33 (29%)	31 (19%)
Magnitude difference	2.6	2.0	3.4	3.7	2.9	4.2	3.1	2.1	2.4	4.2
Total	**101**	**127**	**174**	**199**	**174**	**186**	**177**	**129**	**112**	**160**

FIGURE 7. **HIV Diagnosis Rates by HR, 2015**



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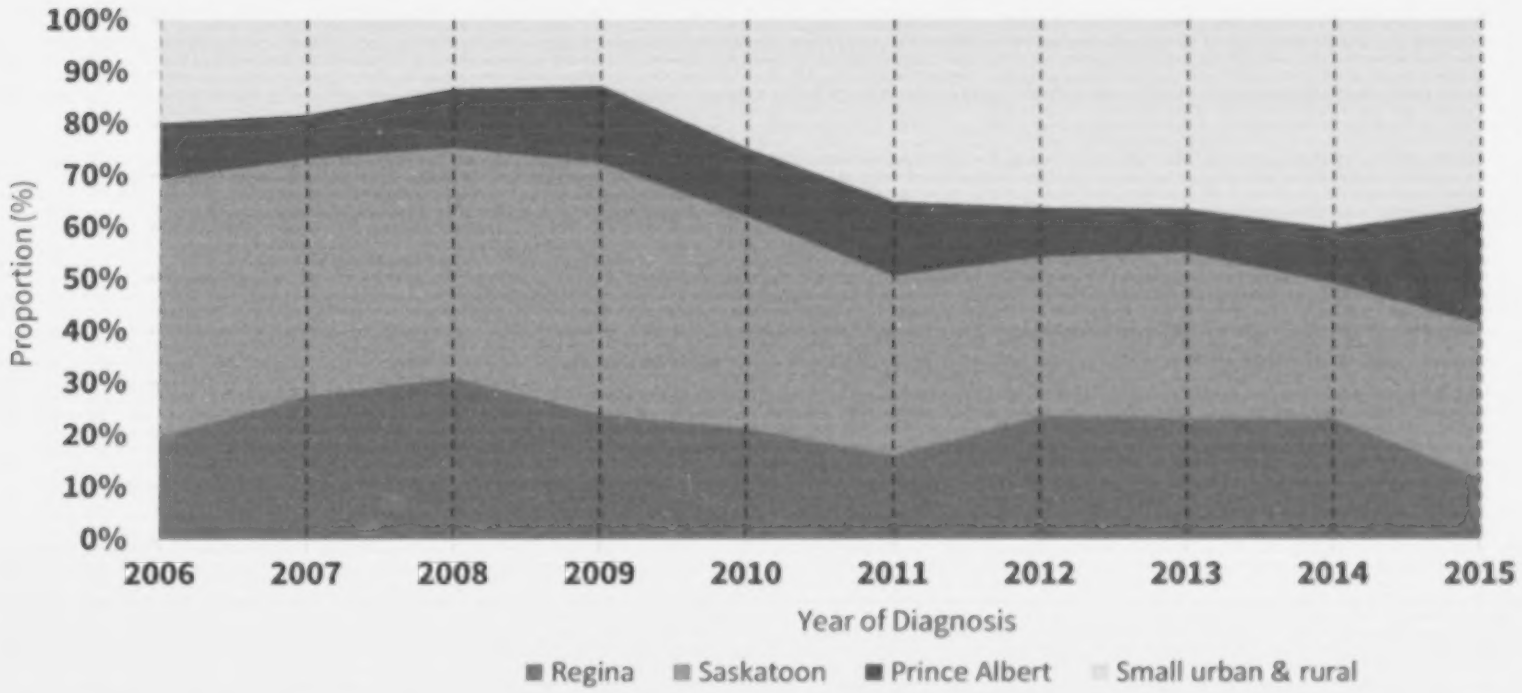
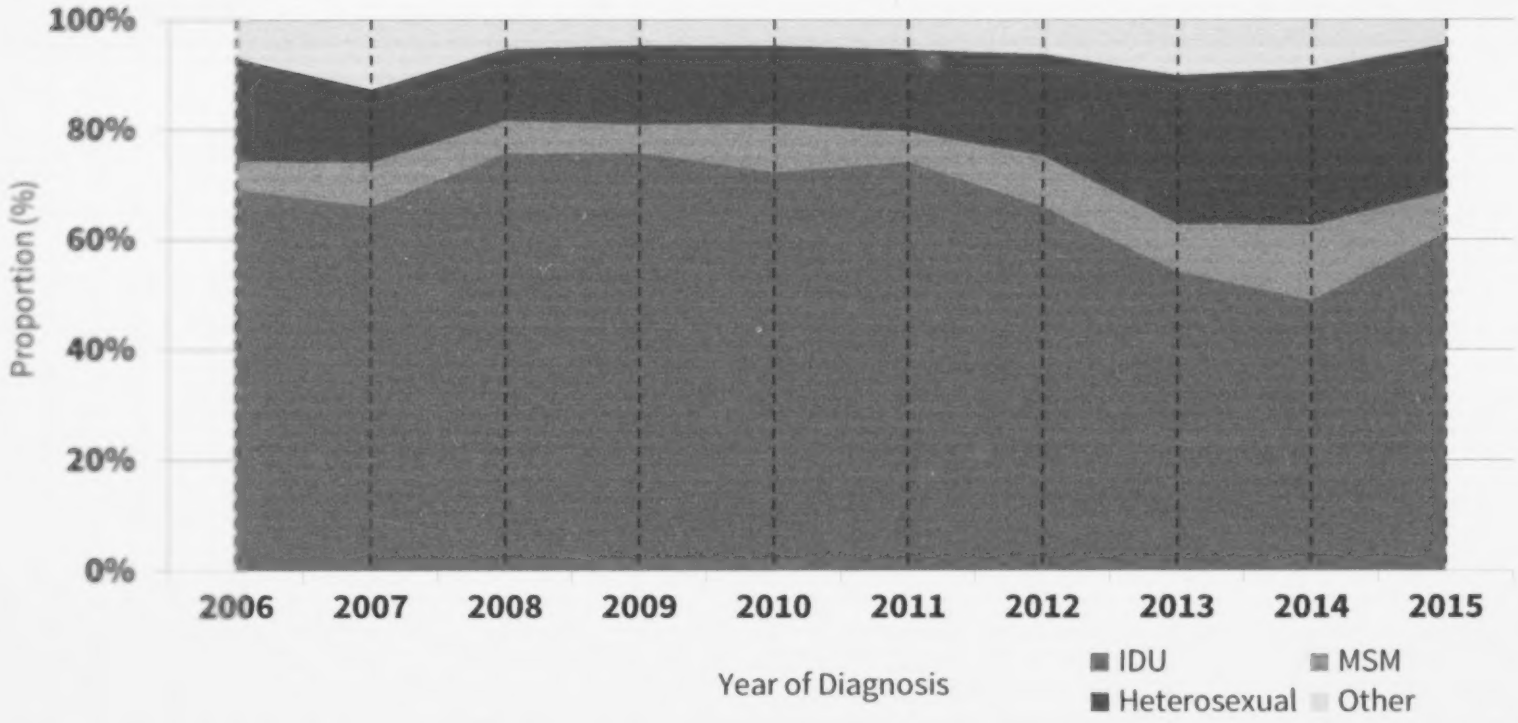


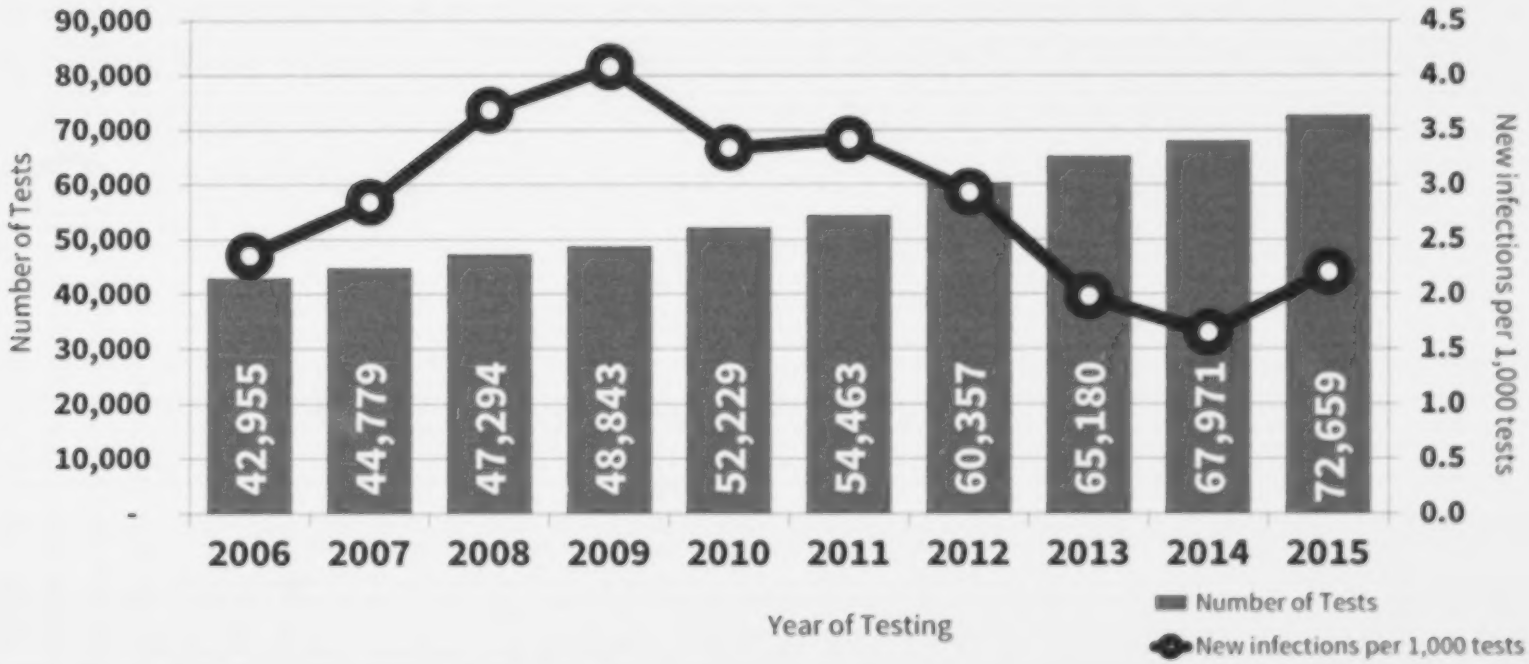
City of residence upon diagnosis	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Regina	20 (20%)	35 (28%)	54 (31%)	48 (24%)	37 (21%)	30 (16%)	42 (24%)	30 (23%)	26 (23%)	19 (12%)
Saskatoon	50 (50%)	58 (46%)	77 (44%)	96 (48%)	71 (41%)	64 (34%)	54 (31%)	41 (32%)	29 (26%)	47 (29%)
Prince Albert	11 (11%)	11 (9%)	20 (11%)	30 (15%)	23 (13%)	27 (15%)	17 (10%)	11 (9%)	12 (11%)	36 (23%)
Small urban & rural	20 (20%)	23 (18%)	23 (13%)	25 (13%)	43 (25%)	65 (35%)	64 (36%)	47 (36%)	45 (40%)	58 (36%)
Total	**101**	**127**	**174**	**199**	**174**	**186**	**177**	**129**	**112**	**160**

FIGURE 9 & TABLE 10. **Newly diagnosed persons self-reporting primary risk factors for acquiring HIV infection, 2006-2015**



Primary Risk Factor	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Injection Drug Use (IDU)	70 (69%)	84 (66%)	132 (76%)	151 (76%)	126 (72%)	138 (74%)	117 (66%)	70 (54%)	55 (49%)	98 (61%)
Men having sex with men (MSM)	5 (5%)	10 (8%)	10 (6%)	10 (5%)	15 (9%)	10 (5%)	16 (9%)	11 (9%)	15 (13%)	12 (8%)
Heterosexual exposure	19 (19%)	17 (13%)	23 (13%)	29 (15%)	25 (14%)	28 (15%)	33 (19%)	35 (27%)	32 (29%)	43 (27%)
Other exposure	7 (7%)	16 (13%)	9 (5%)	9 (5%)	8 (5%)	10 (5%)	11 (6%)	13 (10%)	10 (9%)	7 (4%)
Total	**101**	**127**	**174**	**199**	**174**	**186**	**177**	**129**	**112**	**160**

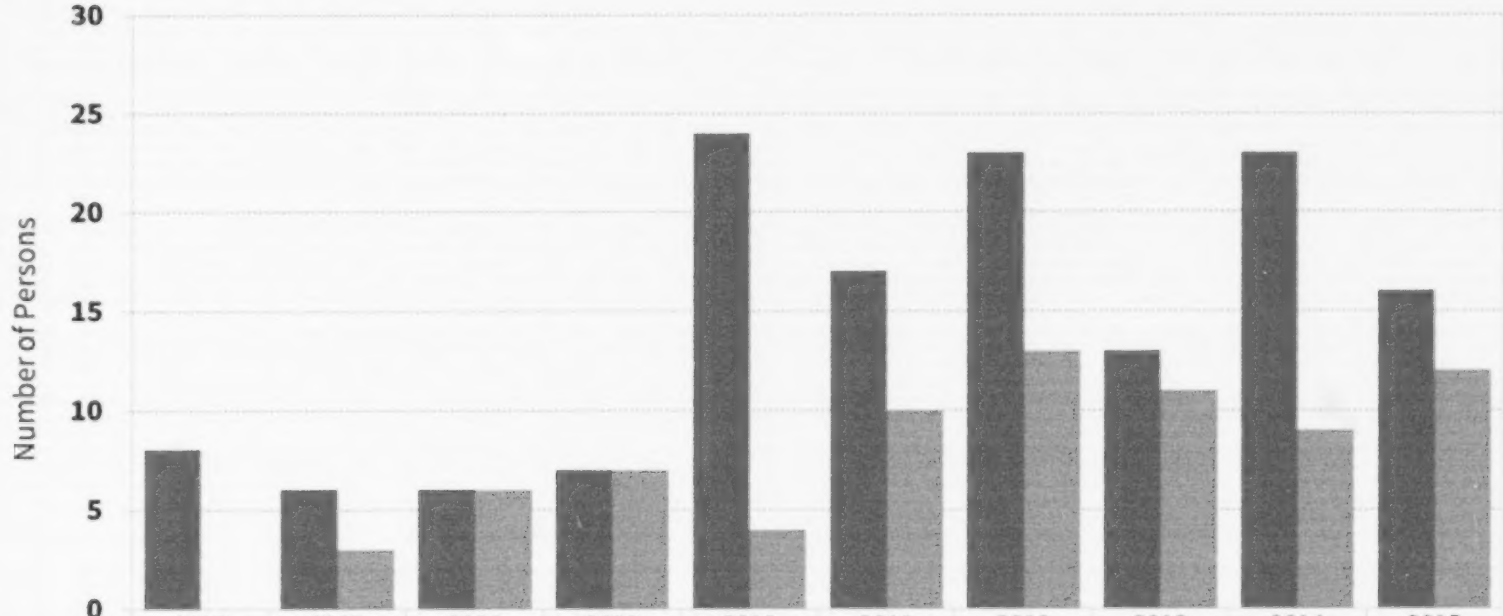
FIGURE 10 & TABLE 13. **HIV tests performed at SDCL and new infection rate, 2006-2015**



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Number of Tests	42,955	44,779	47,294	48,843	52,229	54,463	60,357	65,180	67,971	72,659	**556,730**
% Change from previous year	-	4%	6%	3%	7%	4%	11%	8%	4%	6%	**69%↑****
New infections per 1,000 tests	2.4	2.8	3.7	4.1	3.3	3.4	2.9	2.0	1.6	2.2	**2.8**

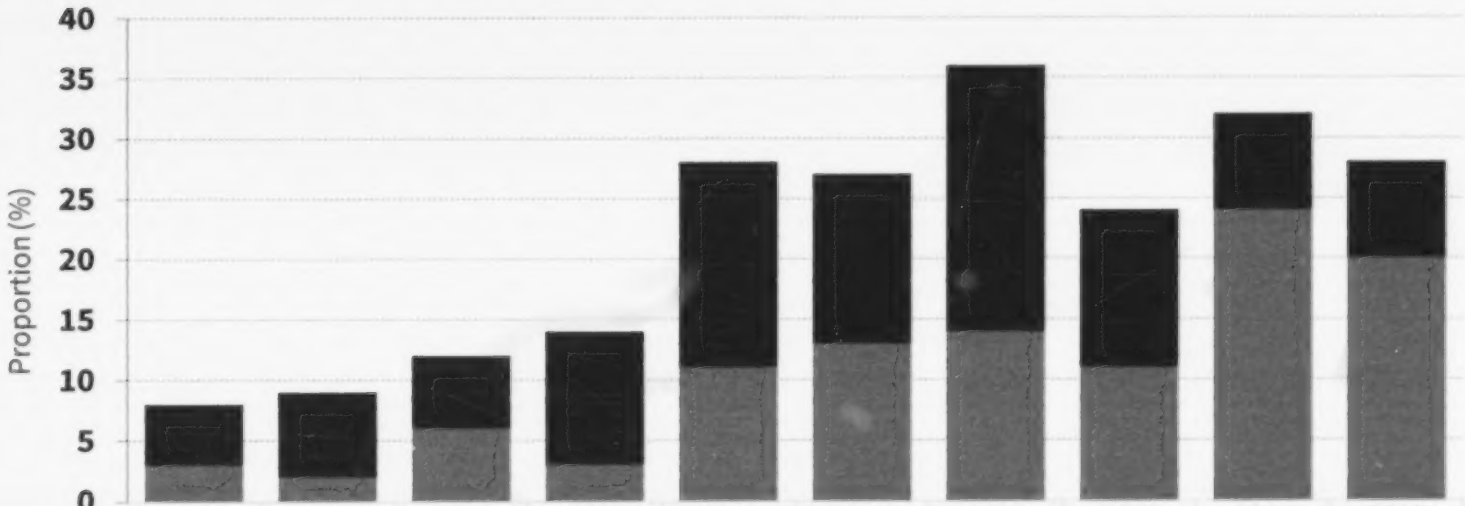
**Percent change 2006 to 2015

FIGURE 11. **Persons newly diagnosed with AIDS by year and gender, 2006-2015**



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
MALES	8	6	6	7	24	17	23	13	23	16
FEMALES	0	3	6	7	4	10	13	11	9	12
TOTAL	8	9	12	14	28	27	36	24	32	28

FIGURE 12. **Life status* of persons newly diagnosed with AIDS by year of diagnosis**



*Life status as of August 15, 2016